



8 Zones Multiroom System

ORDERCODE D2680



SHOWELECTRONICS FOR PROFESSIONALS

Congratulations!

You have bought a great, innovative product from DAP Audio.

The DAP Audio 8 Zones Multiroom System brings excitement to any venue. Whether you want simple plug-&-play action or a sophisticated show, this product provides the effect you need.

You can rely on DAP Audio, for more excellent audio products.

We design and manufacture professional audio equipment for the entertainment industry.

New products are being launched regularly. We work hard to keep you, our customer, satisfied.

You can get some of the best quality, best priced products on the market from DAP Audio.

So next time, turn to DAP Audio for more great audio equipment.

Always get the best -- with DAP Audio !

Thank you!



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WARNING

**FOR YOUR OWN SAFETY, PLEASE READ THIS USER MANUAL CAREFULLY
BEFORE YOUR INITIAL START-UP!**

Unpacking Instructions

Immediately upon receiving this product, carefully unpack the carton and check the contents to ensure that all parts are present, and have been received in good condition. Notify the dealer immediately and retain packing material for inspection if any parts appear damaged from shipping or the carton itself shows signs of mishandling. Save the carton and all packing materials. In the event that a fixture must be returned to the factory, it is important that the fixture be returned in the original factory box and packing.

Your shipment includes:

- DAP 8 Zones Multiroom System Controller/ Amplifier
- Keypad x 8
- KP-C Cover x 24 (Black x 8 + Almond x 8 + White x 8)
- WPC Cover x 24 (Black x 8 + Almond x 8 + White x 8)
- IEC cable (1,75m)
- User manual

WARNING



CAUTION!



Keep this system away from rain and moisture!

SAFETY INSTRUCTIONS

Every person involved with the installation, operation and maintenance of this system have to:

- be qualified
- follow the instructions of this manual



**CAUTION! Be careful with your operations.
With a dangerous voltage you can suffer
a dangerous electric shock when touching the wires!**



Before you initial start-up, please make sure that there is no damage caused by transportation. Should there be any, consult your dealer and do not use the system.

To maintain perfect condition and to ensure a safe operation, it is absolutely necessary for the user to follow the safety instructions and warning notes written in this manual.

Please consider that damages caused by manual modifications to the system are not subject to warranty.

This system contains no user-serviceable parts. Refer servicing to qualified technicians only.

IMPORTANT:

The manufacturer will not accept liability for any resulting damages caused by the non-observance of this manual or any unauthorized modification to the system.

- Never let the power-cord come into contact with other cables! Handle the power-cord and all connections with the mains with particular caution!

- Never remove warning or informative labels from the unit.
- Never use anything to cover the ground contact.
- Do not insert objects into air vents.
- Do not connect this system to a dimmerpack.
- Do not switch the system on and off in short intervals, as this would reduce the system's life.
- Do not open the device and do not modify the device.
- Do not open this device. Risk: hazardous radiation exposure.
- Only use system indoor, avoid contact with water or other liquids.
- Avoid flames and do not put close to flammable liquids or gases.
- Always disconnect power from the mains, when system is not used. Only handle the power-cord by the plug. Never pull out the plug by tugging the power-cord.
- Make sure you don't use the wrong kind of cables or defective cables.
- Make sure that the signals into the mixer are balanced, otherwise hum could be created.
- Make sure you use DI boxes to balance unbalanced signals; All incoming signals should be clear.
- Make sure that the available voltage is not higher than stated on the rear panel.
- Make sure that the power-cord is never crimped or damaged. Check the system and the power-cord from time to time.
- Make sure that the amplifier is turned down, before turning the power on or off. So you can avoid supersonic frequencies, which could damage your speakers.
- Don't put your equipment next to TV, radio, etc., because of interference or distortion.
- If you connect other parts of the system, be careful of ground loops.
- The best way to avoid ground loops is connecting the electrical system ground to one central point ("star" system). In this case the mixer can act as a central point.
- Before changing the ground, always turn off your amplifier.
- Please read this manual carefully and keep it for future reference. Remember that the amplifier has a better value on the market, if you save the carton and all packing materials.
- Always operate the unit with the AC ground wire connected to the electrical system ground.
- Connecting amplifier outputs to oscilloscopes or other test equipment, while the amplifier is in bridged mode, may damage both the amplifier and test equipment.
- Do not drive the inputs with a signal level bigger, than required to drive the equipment to full output.
- In system setup, the amplifier's output power must be 50%-100% more than the loaded loudspeakers rated power.
- Please turn off the power switch, when changing the power cord or signal cable, or select the input mode switch.
- In typical use, please set the volume at 0dB position.
- Sometimes, when you want to send one signal to more than one amplifier, you should use a signal distributor.
- If your Dap Audio device fails to work properly, discontinue use immediately. Pack the unit securely (preferably in the original packing material), and return it to your Dap Audio dealer for service.
- Allow time to cool down, before cleaning or servicing.
- For replacement use fuses of same type and rating only.
- Prevent distortion! Make sure that all components connected to the device have sufficient power ratings. Otherwise distortion will be generated because the components are operated at their limits.
- Avoid ground loops! Always be sure to connect the power amps and the mixing console to the same electrical circuit to ensure the same phase!
- If system is dropped or struck, disconnect mains power supply immediately. Have a qualified engineer inspect for safety before operating.
- If the system has been exposed to drastic temperature fluctuation (e.g. after transportation), do not switch it on immediately. The arising condensation water might damage your system. Leave the system switched off until it has reached room temperature.
- This device falls under protection class I. Therefore it is essential to connect the yellow/green conductor to earth.
- Repairs, servicing and electric connection must be carried out by a qualified technician.
- WARRANTY: Till one year after date of purchase.

OPERATING DETERMINATIONS

If this system is operated in any other way, than the one described in this manual, the product may suffer damages and the warranty becomes void.

Any other operation may lead to dangers like short-circuit, burns, electric shock, etc.

You endanger your own safety and the safety of others!

Improper installation can cause serious damage to people and property !

Connection with the mains

Connect the device to the mains with the power-plug.

Always pay attention, that the right color cable is connected to the right place.

International	EU (including UK) From April 2004	North America	Pin
L	Brown	Black	Phase
N	Blue	White	Neutral
	Green/Yellow	Green	Protective Earth

Make sure that the device is always connected properly to the earth!

Return Procedure

Returned merchandise must be sent prepaid and in the original packing, call tags will not be issued. Package must be clearly labeled with a Return Authorization Number (RMA number). Products returned without an RMA number will be refused. Highlite will not accept the returned goods or any responsibility. Call Highlite 0031-455667723 or mail aftersales@highlite.nl and request an RMA prior to shipping the fixture. Be prepared to provide the model number, serial number and a brief description of the cause for the return. Be sure to properly pack fixture, any shipping damage resulting from inadequate packaging is the customer's responsibility. Highlite reserves the right to use its own discretion to repair or replace product(s). As a suggestion, proper UPS packing or double-boxing is always a safe method to use.

Note: If you are given an RMA number, please include the following information on a piece of paper inside the box:

- 1) Your name
- 2) Your address
- 3) Your phone number
- 4) A brief description of the symptoms

Claims

The client has the obligation to check the delivered goods immediately upon delivery for any short-comings and/or visible defects, or perform this check after our announcement that the goods are at their disposal. Damage incurred in shipping is the responsibility of the shipper; therefore the damage must be reported to the carrier upon receipt of merchandise.

It is the customer's responsibility to notify and submit claims with the shipper in the event that a fixture is damaged due to shipping. Transportation damage has to be reported to us within one day after receipt of the delivery.

Any return shipment has to be made post-paid at all times. Return shipments must be accompanied with a letter defining the reason for return shipment. Non-prepaid return shipments will be refused, unless otherwise agreed in writing.

Complaints against us must be made known in writing or by fax within 10 working days after receipt of the invoice. After this period complaints will not be handled anymore.

Complaints will only then be considered if the client has so far complied with all parts of the agreement, regardless of the agreement of which the obligation is resulting.

Description of the device

Features

The 8 Zones Multiroom System is a professional high power Public Address Amplifier:

- Multi-room/ source distribution system
- Audio and video signal distribution
- Easy connection and mounting system
- Master-slave link setup (10 units)
- 19" Rack mount type (2HE size)

Frontpanel

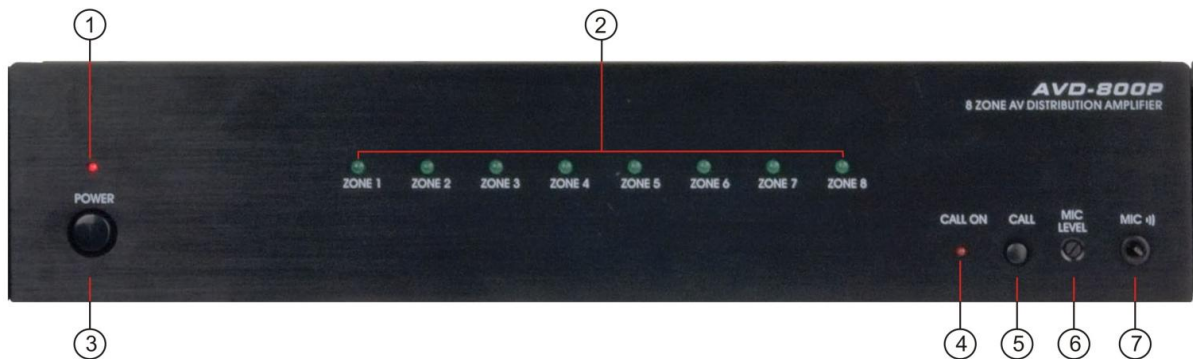


Fig. 1

1. Power LED

Indicates that the amplifier is turned on.

2. Zone 1-8 LED

Indicates that the keypad is connected and active.

3. AC Power Switch

This is the main Power switch. Press to turn the amplifier on.

4. Call On LED

Indicates that the Call function is activated.

5. Call

Press to activate the Call function. When the call function is activated, all keypads connected to the unit will indicate a call by a flashing display. When desired, you can broadcast a message by using a microphone connected to the **Mic (7)** input.

6. Mic Level

Use this control to adjust the volume of the Microphone input without changing the overall mix.

7. Mic Jack Input

Unbalanced microphone input.

Backpanel

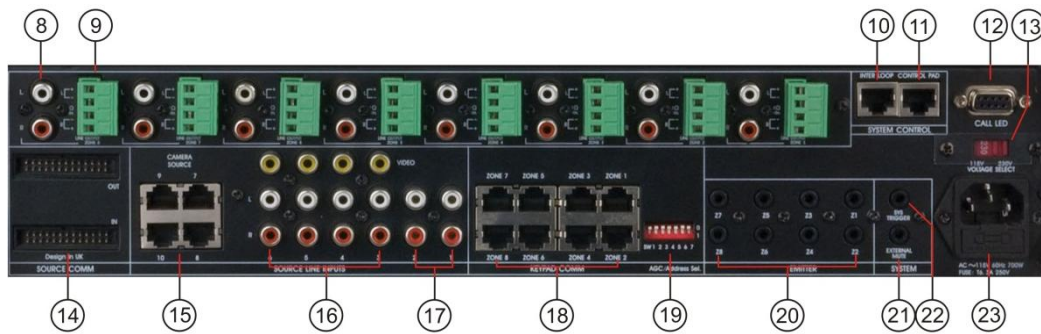


Fig. 2

8. Preamp Line Out (1-8)

If an application requires more power than the built in zone poweramp (2x20W) can deliver, you can use the zone line outputs to connect an additional amplifier.

9. Zone Speaker Output (zone 1-8)

Four pole terminal for connecting 2 speakers to a zone.

Make sure that the minimum speaker load is 4 Ω .

10. Inter Data Loop

You can loop up to 16 units giving you a maximum of 128 zones using this connector. Also see fig. 4.

11. Control Pad

This connector is used for linking purposes when using more than 2 units and is wired in parallel with the **Inter Data Loop (10)** connector. Also see figure 4.

12. Call LED

Use this connector to connect an optional Call LED Display Box.

13. AC-selector switch

Check the setting of this switch. The switch should always be set to the mains voltage used in your country.

14. Input Source Loop In/ Out

Use these connectors to loop the 10 audio/ video sources when using several units by using an IDC flatcable.

15. Video Camera Input

Use to connect up to 4 composite (analog) camera's by means of a suitable BNC -> Cat 5 adapter. Camera's can be monitored in sequence by pressing the **Master Scan (44)** Button on your remote control.

16. Zone Audio/ Video Input

You can connect 4 audio/ video sources selectable by using the keypad. Press the **Select (26)** button until the **Function LED (24)** light then select the source C1-C6 using the **Up (29)** and **Down (28)** buttons.

17. Zone Audio Input

You can connect 2 audio sources selectable by using the keypad. Press the select button until the Function LED light then select the source C1-C6 using the **Up (29)** and **Down (28)** buttons.

18. Keypad (zone 1-8)

You can connect up to 8 keypads to a single device.

19. AGC/ Address Select

If linking more than one device you have to set each device to its own address. See the section on DIP switch settings on page 7.

20. IR Remote Emitter (1-8)

Use these outputs to connect an optional IR link cable.

21. External Mute

Use an external signal between 3Vdc and 12Vdc to mute all zones.

22. SYS Trigger

The **SYS Trigger** output will be 12Vdc (High) if at least one zone is powered on. If all zones are powered off, the output will be 0Vdc (Low).

23. AC Inlet With Integrated Fuse Holder

This connector is meant for the connection of the supplied main cord. Connect one end of the power cord to the connector, the other end to the mains, then turn on the **Power Switch (11)** to operate the unit.

Note: Please make sure that the supply voltage matches the operation voltage before connecting the unit to mains.

Replace the fuse only with a fuse of same specification (230V:T6.3A/ 115V: 12A).

Operation

Installation

Remove all packing materials from the 8 Zones Multiroom System. Check that all foam and plastic padding is removed.

Secure the equipment into a 19" rack. Connect all cables.

Connecting Power / Circuit Size Requirements.

The actual current draw, the amplifier demands from the AC mains, depends on many factors (its load, output level or the crest factor of its program material).

The power requirement is rated under typical music conditions, with both channels driven so those peaks are just at the clipping point.

Make sure the mains voltage is correct and is the same as printed on the rear of the amplifier. Damage caused by connecting the amplifier to improper AC voltage is not covered by any warranty. Unless otherwise specified when ordered. DAP audio amplifiers shipped to customers are configured as follows:

North America 120VAC/60Hz

Europe 230VAC/50Hz

Asia 220VAC /50Hz/60Hz

Australia 240VAC/50Hz

South America 120VAC/60Hz or 220VAC/50Hz

Japan 100VAC/50Hz

NOTE: Always turn off and disconnect the amplifier from mains voltage before making audio connections. Also, as an extra precaution, have the attenuators turned down during power-up.

Dip switch settings

DIP switch on the back can be used has 3 functions:

1. Use DIP switch 1-5 to assign an address to each device if using multiple devices together.



S151 SIP SW					SLAVE#
1	2	3	4	5	
1	1	1	1	1	Master
0	0	0	0	1	Slave 1
0	0	0	0	1	Slave 2
0	0	0	1	0	Slave 3
0	0	0	1	1	Slave 4
0	0	1	0	0	Slave 5
0	0	1	0	1	Slave 6
0	0	1	1	0	Slave 7

S151 SIP SW					SLAVE#
1	2	3	4	5	
0	0	1	1	1	Slave 8
0	1	0	0	0	Slave 9
0	1	0	0	1	Slave 10
0	1	0	1	0	Slave 11
0	1	0	1	1	Slave 12
0	1	1	0	0	Slave 13
0	1	1	0	1	Slave 14
0	1	1	1	0	Slave 15

S151 SIP SW					SLAVE#
1	2	3	4	5	
1	1	1	1	1	Slave 16
1	0	0	0	0	Slave 17
1	0	0	0	1	Slave 18
1	0	0	1	0	Slave 19
1	0	0	1	1	Slave 20
1	0	1	0	0	Slave 21
1	0	1	0	1	Slave 22
1	0	1	1	0	Slave 23

S151 SIP SW					SLAVE#
1	2	3	4	5	
1	0	1	1	1	Slave 24
1	1	0	0	0	Slave 25
1	1	0	0	1	Slave 26
1	1	0	1	0	Slave 27
1	1	0	1	1	Slave 28
1	1	1	0	0	Slave 29
1	1	1	0	1	Slave 30
1	1	1	1	0	Slave 31

Fig. 3

2. DIP switch 6 can be used to switch the autobroadcast function On or Off.

Dip switch 6 = 1

Pressing the Call switch on the frontpanel of the AVP-800P will generate a call even if a keypad is powered off. If a keypad is powered off the AVP-800 will automatically start up the keypad in call mode.

Dip switch 6 = 0

Pressing the Call switch on the frontpanel of the AVP-800P will generate a call only for the keypads Which are powered on. If a keypad is powered off, it will remain powered off.

3. DIP switch 7 can be used for Auto Gain Selection (AGS). This function automatically levels the volume of all inputs at the same level.

DIP switch 7 = 0

Enable AGS

DIP switch 7 = 1

Disable AGS

Connecting Multiple Units

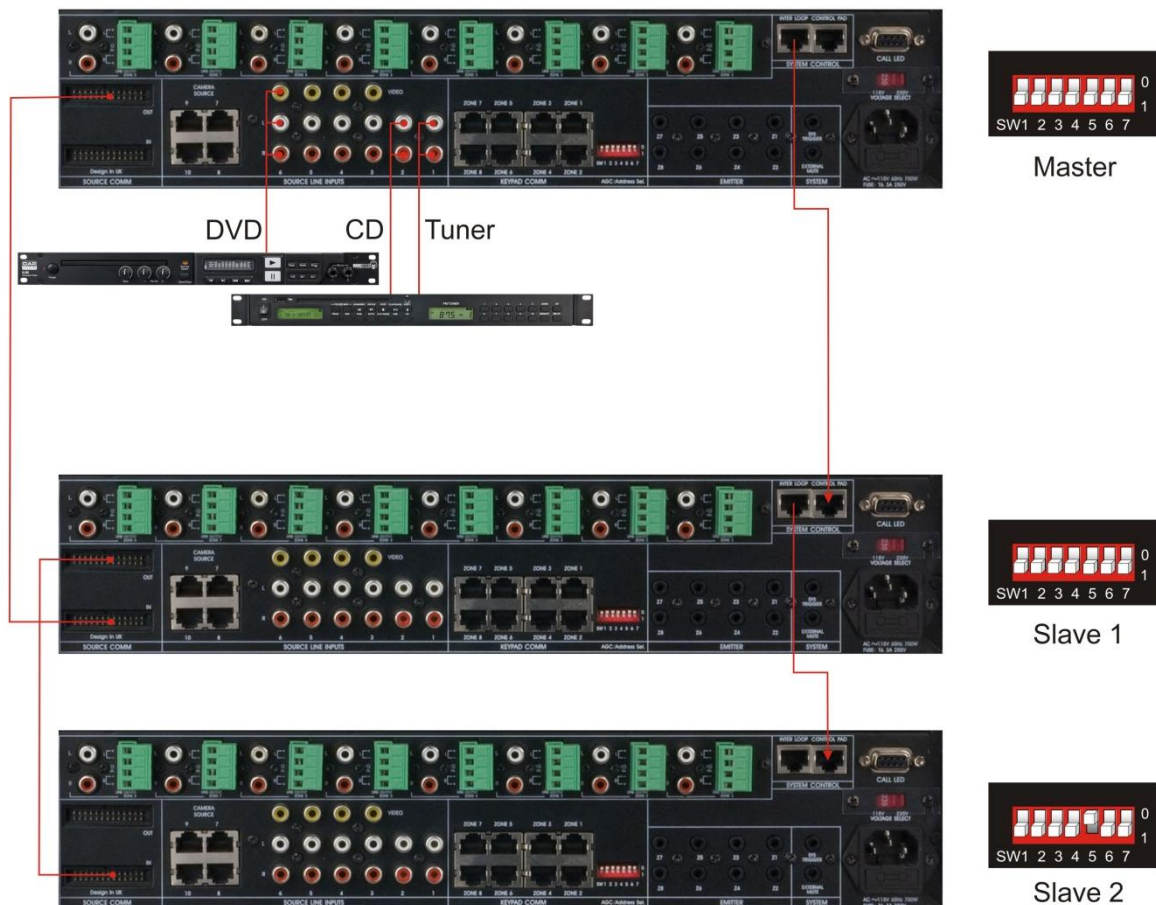


Fig. 4

Use CAT5 cables to Link the System Control busses. Be sure to address the units properly. For more details see the chapter on DIP- Switch settings on page 7.

Use a 26-pole IDC flatcable to connect the OUT of the Master with the IN of the first Slave, the OUT of Slave 1 with the In of Slave 2 etc. You can expand up to 15 slaves.

Connecting Inputs

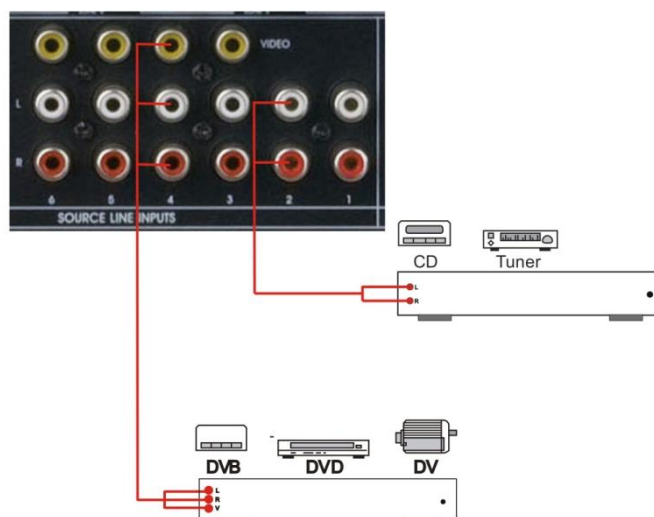


Fig. 5

Connecting Outputs

Speakers are connected using terminal connectors. See the examples below and following page.

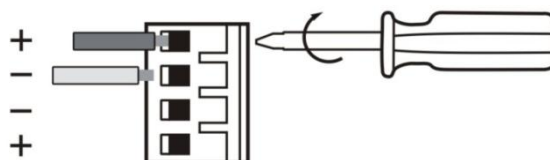


Fig. 6

Absolute minimum nominal load Impedance is 4 Ohm per channel to avoid damage to the amplifier. The total speaker power should be at least the power of the amplifier to avoid damage to the speakers.

Keypad Panel Features and Functions.

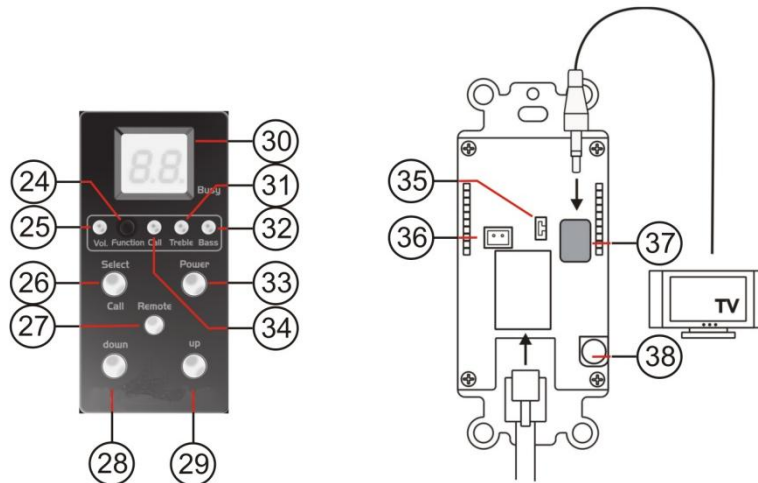


Fig. 7

24. Function LED

This LED lights if function mode is selected. In function mode you can select source 1-6 using the **Up (29)** and **Down (28)** buttons.

25. Volume LED

This LED lights if volume mode is selected. In volume mode you can adjust the volume using the **Up (29)** and **Down (28)** buttons.

26. Select/ Call Button

The select switch lets you select Volume, Function, Treble or Bass mode. The corresponding LED indicates the selected mode. Pressing the select switch 3 seconds selects the Call function. The keypad call function only works in combination with the optional LED display. If a LED display is connected, the corresponding LED will light indicating a call from that certain keypad.

27. IR receiver

Use in combination with the infrared remote control.

28. Down

Use this button together with the **Up (29)** button to adjust the Volume, treble and bass level or to select source C1-C6.

29. Up

Use this button together with the **Down (28)** button to adjust the Volume, treble and bass level or to select source C1-C6.

30. Display

If the unit is turned on, the LED display will show the selected source, the volume bass and treble level depending on the selected mode.

31. Treble LED

This LED lights if treble mode is selected. In treble mode you can adjust the treble level using the **Up (29)** and **Down (28)** buttons.

32. Bass LED

This LED lights if bass mode is selected. In bass mode you can adjust the bass level using the **Up (29)** and **Down (28)** buttons.

33. Power Button

Press to turn on the keypad and activate the corresponding zone.

34. Call LED

This LED lights if Call (panic) mode is activated. Call mode is selected by pressing the **Select/ Call (26)** button for more than 3 seconds or use an external switch connected to the **Call Switch Terminal (36)**.

35. Camera Scan Jumper

If the jumper is removed, the camera scan function is disabled and the keypad's **Video Output (37)** will block the camera scan signals. If the jumper is in place, the camera scan function is enabled.

36. Call Switch Terminal

Use this terminal to connect an external Panic/ Call switch. The keypad call function only works in combination with the optional LED display. If a LED display is connected, the corresponding LED will light indicating a call from that certain keypad.

37. RCA Video Out

Connect this output to a TV or composite Monitor.

38. Video Gain Control

Use to adjust the video output level of the keypad. Range 0 - +6dB.

Keypad Installation

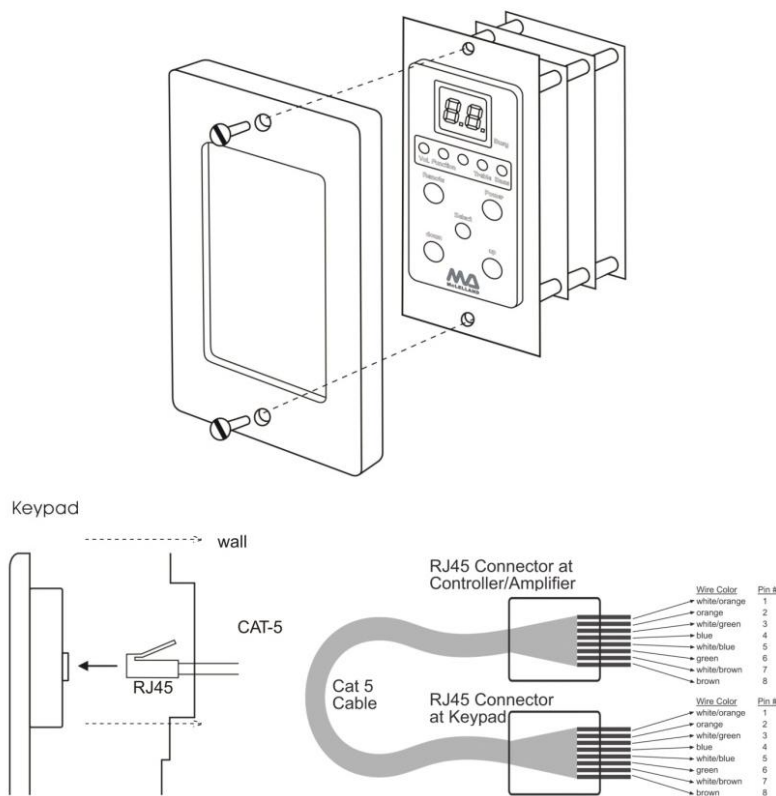


Fig. 8

Remote Control

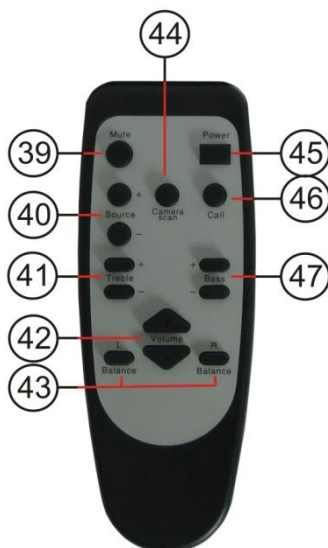


Fig. 9

39. Mute Button

Press to mute all zones.

40. Source +/-

Use these buttons to select the input source C1-C6.

41. Treble +/-

Use these buttons to adjust the Treble level.

42. Volume +/-

Use these buttons to adjust the Volume level.

43. Balance L/R

Press to mute all zones.

44. Camera Scan

Press to scan the cameras connected to your controller's **Camera source inputs (15)** in sequence and display them on the monitor connected to your keypad's **Video Out connector (37)**. Make sure, the **Camera scan jumper (35)** is in place.

45. Power Button

Press to turn on the keypad and activate the corresponding zone. Press again to turn the keypad off.

46. Call Button

Press to turn on the Call function. Press again to turn the Call function off.

47. Bass +/-

Use these buttons to adjust the Bass level.

Connection Cables

Take care of your cables, always holding them by the connectors and avoiding knots and twists when coiling them: This gives the advantage of increasing their life and reliability.

Periodically check your cables. A great number of problems (faulty contacts, ground hum, discharges, etc.) are caused entirely by using unsuitable or faulty cables.

Maintenance

The DAP Audio 8 Zones Multiroom System requires almost no maintenance. However, you should keep the unit clean. Disconnect the mains power supply, and then wipe the cover with a damp cloth. Do not immerse in liquid. Do not use alcohol or solvents.

Keep connections clean. Disconnect electric power, and then wipe the audio connections with a damp cloth. Make sure connections are thoroughly dry before linking equipment or supplying electric power.

Replacing a Fuse

Power surges, short-circuit or inappropriate electrical power supply may cause a fuse to burn out. If the fuse burns out, the product will not function whatsoever. If this happens, follow the directions below to do so.

1. Unplug the unit from electric power source.
2. Insert a flat-head screwdriver into a slot in the fuse cover. Gently pry up the fuse cover. The fuse will come out.
3. Remove the broken fuse. If brown or unclear, it is burned out.
4. Insert the replacement fuse into the holder where the old fuse was. Reinsert the fuse cover.
Be sure to use a fuse of the same type and specification. See the product specification label for details.

Troubleshooting

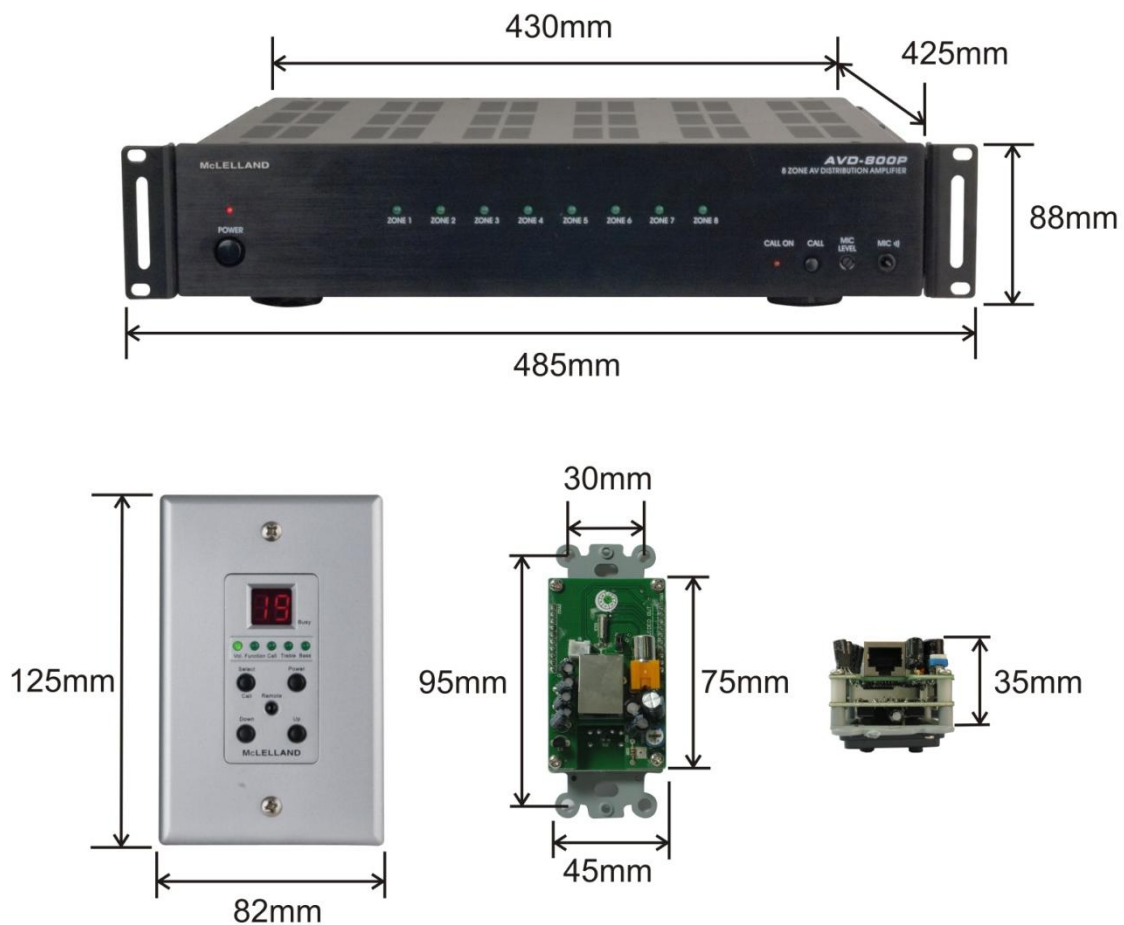
DAP Audio 8 Zones Multiroom Amplifiers.

This troubleshooting guide is meant to help solve simple problems. If a problem occurs, carry out the steps below in sequence until a solution is found. Once the unit operates properly, do not carry out following steps.

1. If the device does not operate properly, unplug the device.
2. Check the fuse, power from the wall, all cables, etc.
3. If all of the above appears to be O.K., plug the unit in again.
4. If you are unable to determine the cause of the problem, do not open the amplifier, as this may damage the unit and the warranty will become void.
5. Return the amplifier to your Dap Audio dealer.

Product Specifications

Power supply: AC 115V-60Hz, 230V-50Hz
Power consumption: 240 Watt
Power connector: Schuko
Output power: 8 zones 20 watt
Output connector audio: terminal connector
Keypad connector: RJ-45 (UTP cat-5)
6 stereo inputs (RCA)
Keypad controls: Source, bass, treble, volume
4 camera inputs (RJ-45)
4 video inputs (RCA)
Dimension Controller/ Amplifier: 485 x 425 x 88 mm (LxWxH)
Dimension Keypad: 125 x 82mm (LxWxH)



Design and product specifications are subject to change without prior notice.



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